# C4ISR - A Future Perspective

- 5 Key issues
  - 1 - Agility
  - 2 - Interoperability
  - 3 - Operate, 4 - Command, 5 - Inform
    - *The Defence Capability Framework*

# Report Documentation Page

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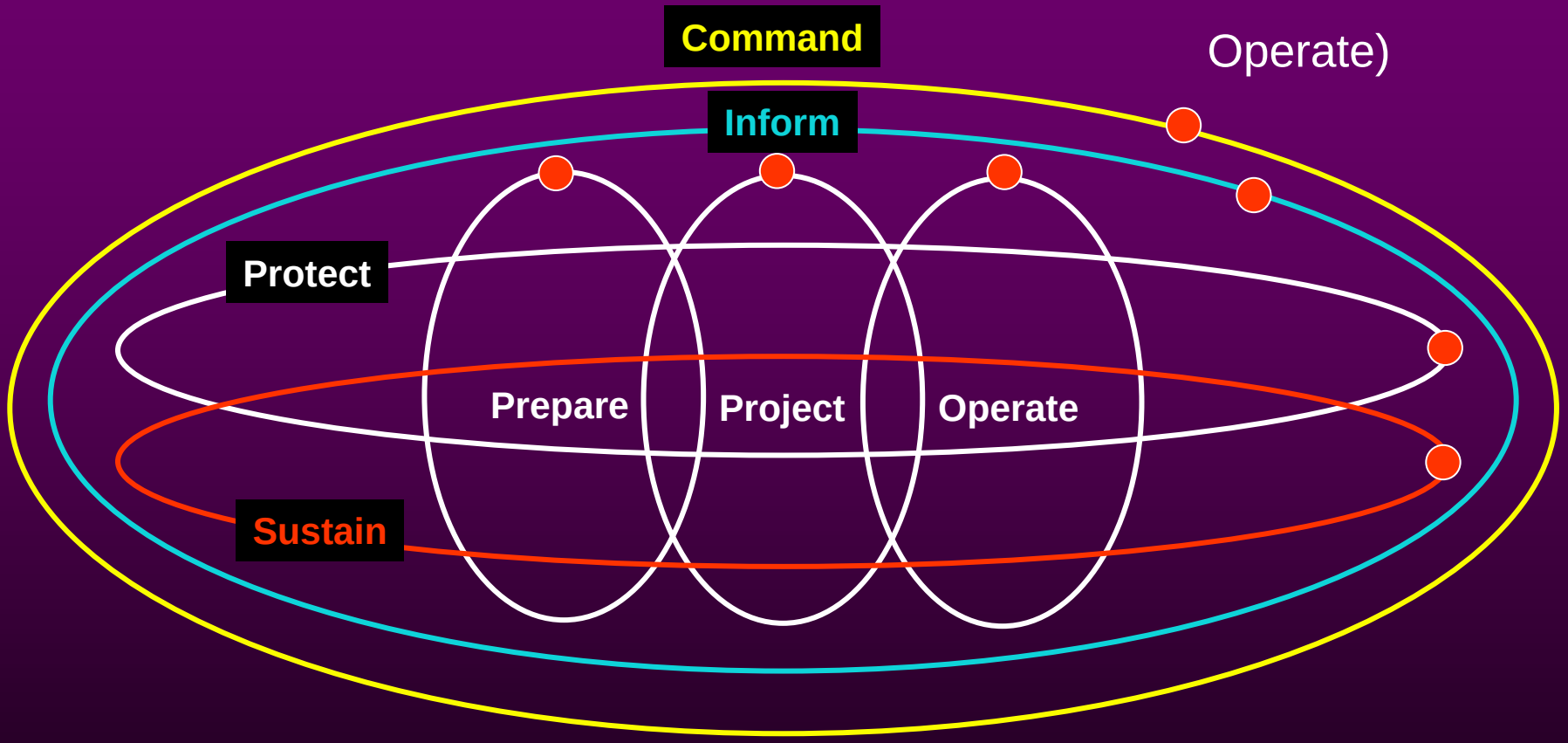
# The Defence Capability Framework

C4ISR (Command, Inform, Operate)




‘Command’ & ‘Inform’ are inseparable

# JOINT DOCTRINE AND CONCEPTS CENTRE
# DEFENCE CAPABILITIES FRAMEWORK

## Component Level

Back

### INFORM

The acquisition, collation, processing, management and distribution of information

| Gain Information | Analyse Information | Disseminate Information | Maintain Information |
|---|---|---|---|
| The capability to obtain or secure facts, processed data or instructions in any medium or form | The capability to examine methodically and in detail the constitution or structure of facts, processed data or instructions in any medium or form, in order to add cognitive value to military activity | The capability to distribute selectively facts, processed data or instructions in any medium or form | The capability to ensure the currency, integrity and/or distribution of facts, processed data or instructions in any medium or form |
| Military Strategic Level | Military Strategic Level | Military Strategic Level | Military Strategic Level |
| Operational Level | Operational Level | Operational Level | Operational Level |
| Tactical Level | Tactical Level | Tactical Level | Tactical Level |

Capability Areas

Military Capabilities

J D C C

# Key Issues 1- Metrics of Capability

- Agility (enabler for Tempo - ‘speed within context’)
  - Responsiveness
    - *Speed of reaction (to the unexpected)*
  - Robustness
    - *Capable of multiple missions*
  - Flexibility
    - *Multiple paths to success (unpredictability)*
  - Adaptability
    - *Learning & adapting (to the unexpected)*

# Key Issues 2 - Interoperability

- US
  - *Unit of currency - scale or capability - NEC*
- Other Key Allies & 'Coalitions of the Willing'
  - *Rate of technological progression*
  - *Backwards procedural compatibility: 'UK Armed Forces will require commanders and staffs who have the patience, tact, flexibility and cultural empathy needed to minimise the drag on tempo'*

# Key Issues 3 - Operate

- Effects Based Operations
- Lexicon of Effects
  - *Encourage, reassure*
  - *Influence, persuade, dissuade*
  - *Prevent, deter, coerce*
  - *Disrupt, isolate, degrade*
  - *Disable, destroy*
- The ultimate effect is cognitive

# Key Issues 4 - Command

- Philosophy
  - *Mission Command - 'synchronisation'*
  - *Virtual expression of 'Command Intent'*
  - *Personal qualities of the commander*
- Structures
  - *Adaptive C2, 'reach back' & 'reach forward'*
  - *Environmental Components, Levels of Command*

  *& Staff functions must be reconfigured*

# Key Issues 5a - Inform

- 'Wider & Deeper' - to enable Effects Based Ops
  - *3 Instruments of Power*
  - *Underlying causes of conflict - appropriate effects*
- *24/7 not always feasible - 'We cannot be all-seeing all the time - we simply do not have the resources' (CDS to RUSI 10 Dec 01)*

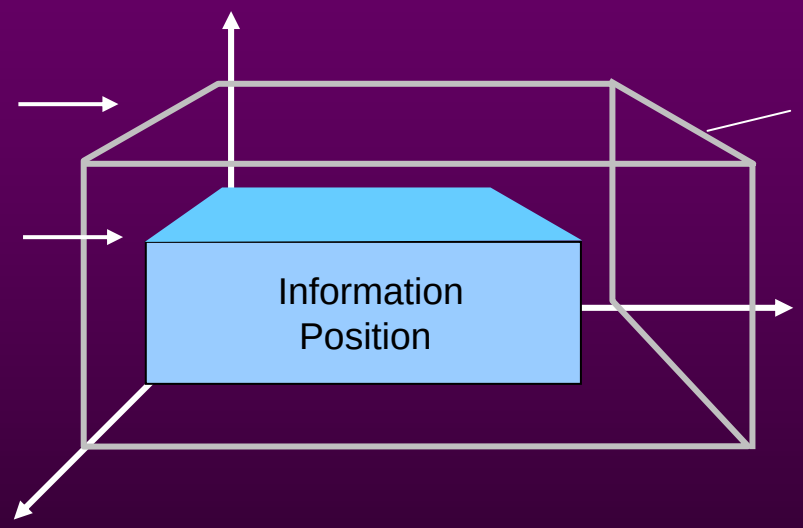
# Key Issues 5b - Inform

Precision & accuracy, currency, timeliness, assurance, completeness

*Richness*

*Overpressure*

*Vacuum*




Information Requirement

*Quality of Interaction*

Voice, data, text,

static & dynamic images,

degree of delay, interaction

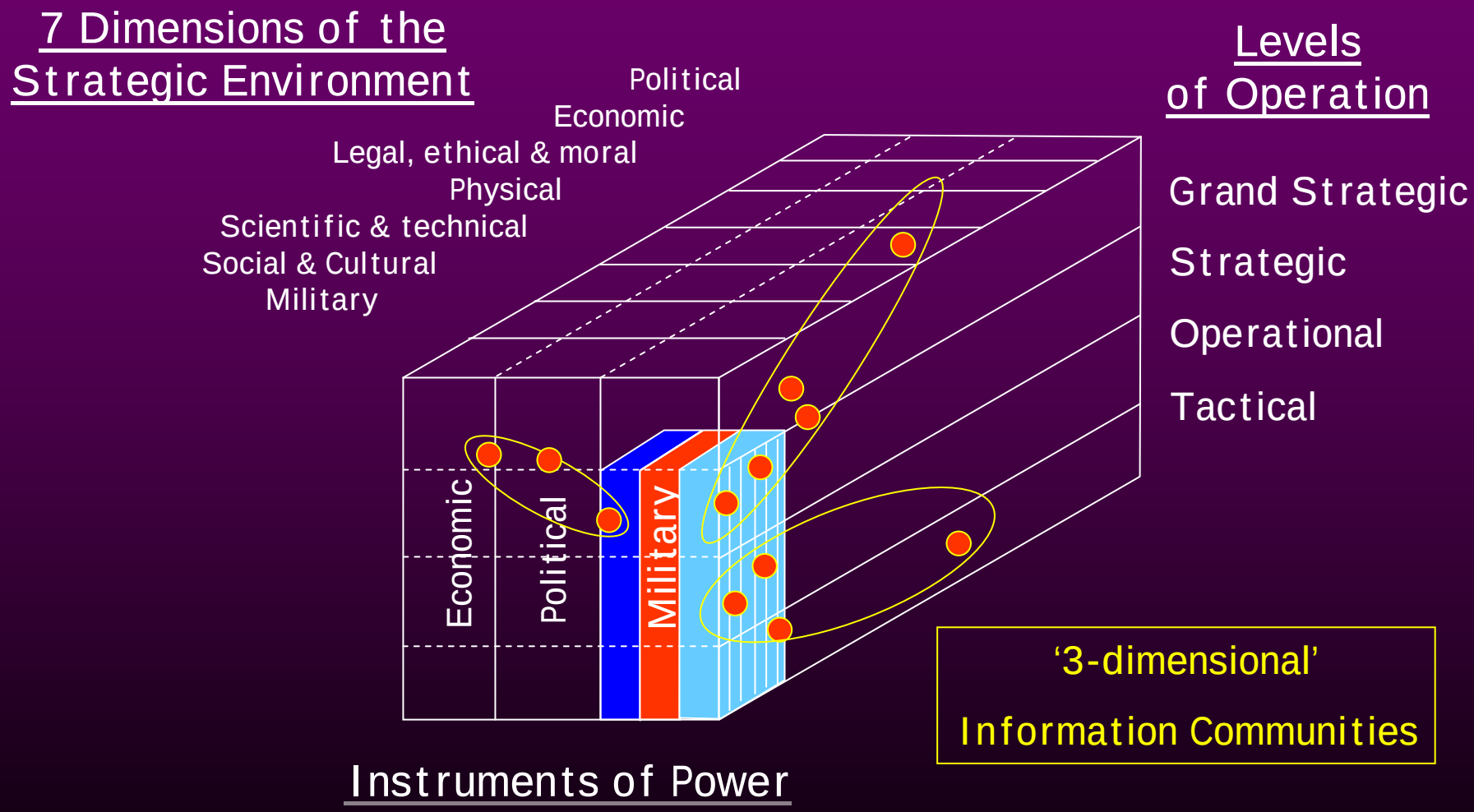
(collaborative planning)

*Reach*

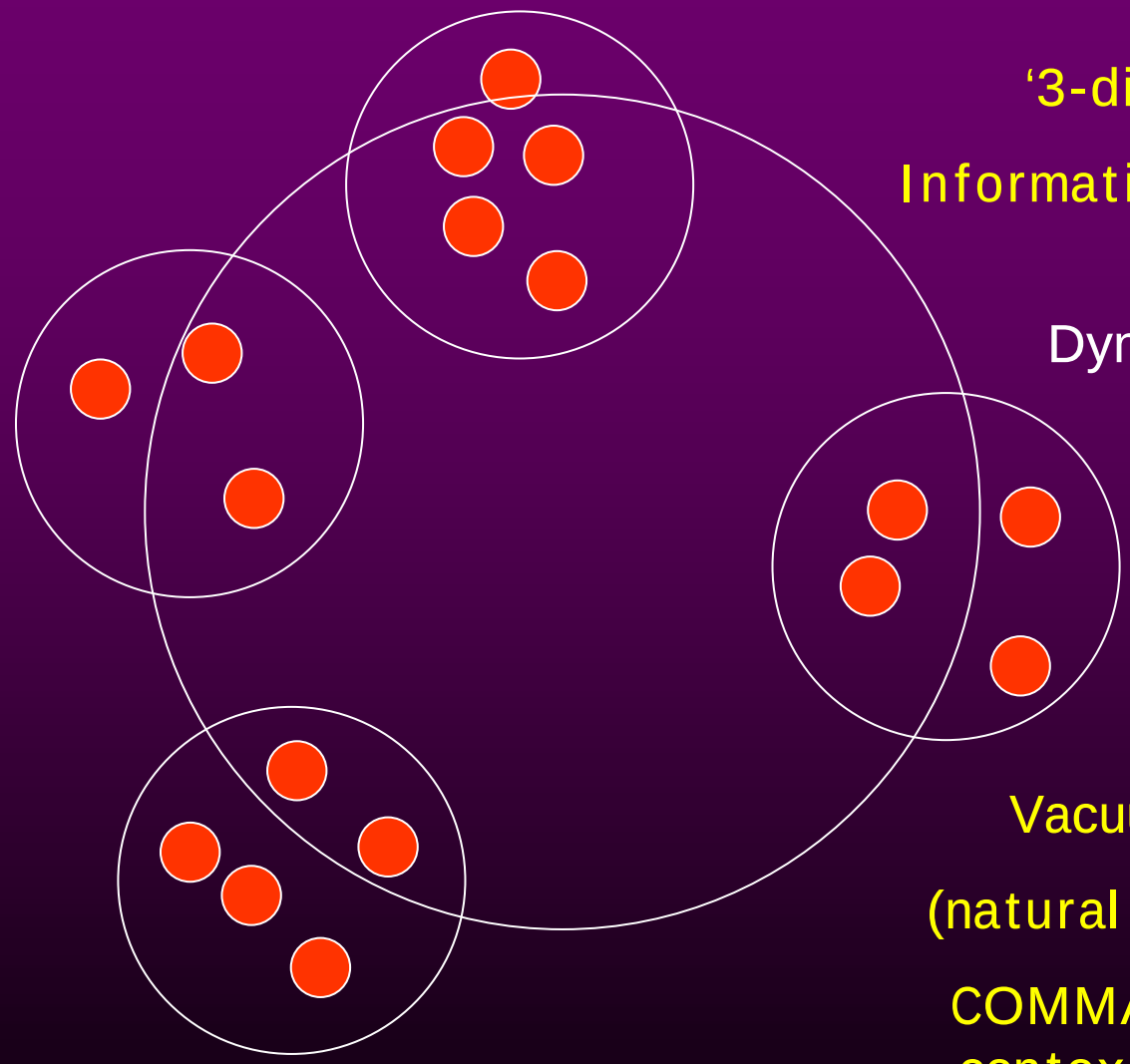
Geography, range, continuity, cross-component & echelon,

cross-coalition, cross-functional areas

# Key Issues 5c - Inform 'Wider & Deeper'



# Key Issues 5d - Inform



'3-dimensional'

Information Communities

Dynamic Reconfiguration

(task oriented)

Vacuums & overpressures

(natural information pull & push)

COMMAND INTENT provides context & sets the conditions

# Key Issues 5e - Inform

- Joint Awareness & Assessment System (JAAS)
  - *More than pictures & graphics*
  - *Covers all Components of Defence Capability*
  - *Richer, shared understanding of R, B, W intent*
  - *History & projection - assist the commander to envisage 'multiple futures'*
- *Procedural Discipline*
  - *A reversal of current trends (e.g. e-mail)?*

# Summary

- Defence Capability Framework
- Agility
- Interoperability
- Effects Based Operations
- Command
- Inform